

Spermatogenesis in mosses.—The VAN LEEUWEN-REIJNVAANS add a few details to their former paper and announce their abandonment of this field of research,²⁹ after a brief excursion into it with rather startling results.³⁰ Now they report centrosomes in the antheridial cells of *Fegatella conica* (contrary to BOLLETER) and in *Pellia epiphylla* (contrary to IKENO). In *Mnium* (sp.?) they find (as in *Polytrichum*) in the last division from 8 to 4 chromosomes, 2 long and 2 short, which is a transverse (not diagonal) reduction.—C. R. B.

Acorus Calamus.—This species was introduced into Europe in the middle of the sixteenth century, and it has always been known that the European plant produces no seeds. A study of the development of the pollen and embryo sac by MÜCKE³¹ shows that both are so defective that the production of seeds is impossible. The reason for the sterility is supposed to be unfavorable climatic conditions.—CHARLES J. CHAMBERLAIN.

Germination of zoospores.—Continuing his studies upon the spores of algae, SAUVAGEAU³² describes the germination of the zoospores of *Cladostephus*, *Algazonia*, and *Cutleria*. Methods of making cultures of zoospores are also discussed.—CHARLES J. CHAMBERLAIN.

²⁹ VAN LEEUWEN-REIJNVAAN, W. AND J., Ueber die Spermatogenese der Moose, speziell mit Berücksichtigung der Zentrosomen- und Reduktionsteilungsfragen. Ber. Deutsch. Bot. Gesells. **26a**:301-309. *pl.* 5. 1908.

³⁰ Cf. BOT. GAZETTE **45**:358. 1908; **46**:234. 1908.

³¹ MÜCKE, M., Ueber den Bau und die Entwicklung der Früchte und über die Herkunft von *Acorus Calamus* L. Bot. Zeit. **66**:1-23. *pl.* I. 1908.

³² SAUVAGEAU, CAMILLE, Nouvelles observations sur la germination du *Cladostephus verticillatus*. Sur la germination des zoospores de l'*Aglaozonia melanoidea*. Sur la germination parthénogénétique du *Cutleria adspersa*. Sur les cultures cellulaires d'Algues. Compt. Rend. **63**:698-704. 1908.